





kind first with  
class. 25 mm.

52

4th length

Dr. Stejneger  
16 mm  
Smithsonian Institution  
Washington D.C.



No 2000. *Sitta pygmaea* ♂ ad.  
St Frisco Mts. Little Sprig. 8200' Arizona  
Sept. 8, 1889.

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Another of same species ♀ ad.  
Same locality and date.  
measured Total length 107 mm  
Diam. of eye 2.5 mm

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A *Turdus auduboni* (sex indisting. juv.)  
same locality and date measured  
total length 187 mm; eye 4.25 mm

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~~Sept. 9.~~ Trip to Grand Cañon.

Ph. 1. - "The Vanguard". Sun behind small  
cloud. inst 5. From Buckboard. 4 pm

Ph. 2. do. do

Sept. 10. Ph. 3 Breakfast in camp. Bright sun.  
inst 1 - 8 am.

Ph. 4. Packing up. To. 51



Ph. 5 "The main body" bright sun.

inst 5. from Wagon. 11 am.

Ph. 6. do. do.

Ph. 7 Old <sup>Navajos</sup> Indians. Red Horse Spring. bright sun.

inst 1. - 2 pm.

Sept. 11. (Camp. Cañon Spring. 7500').

Ph. 8. View of Grand Cañon of the Colorado. Bright sun. inst. 5. - 10.15 am.

Ph. 9. Do. do. inst. 1, same view as 8.

Ph. 10. Do. do. inst. 1. view to the right of 8 & 9.

Ph. 11. Do. do. inst 5 same view as 10.

Ph. 12 Do. do. inst 3. view between the 8 & 10.

Ph. 13 Do. to left of 8. <sup>inst. 1.</sup> partly cloudy 4.40 pm

Ph. 14 Do do inst. 5. do

15. X X X. Roll-holder slipped from camera so plate light struck. perhaps all foregoing also.

Ph. 16 = 14 inst 5.

Ph. 17 = 13 " 1

Ph. 18 = 12 inst. 1. 4.45 pm.

Ph. 19 = 10 inst. 1. "

Ph. 20 = 8 " "

Sept. 12. (Camp. Cañon Spring

Ph. 21. Do. do. from slightly different standpoint. Partly cloudy. Rain in background. inst. 5. 2.30 pm.

Ph. 22. Do. do. inst. 5.

Ph. 23 From a point further west looking west. inst. 5.

Ph. 24 Do do. inst. 1.

Ph. 25 Do looking N.E. inst. 5. 1.

Ph. 26 Do. do. inst. 5.

Sept. 13. - (Camp. )

Descriptions of colors of lizards brought back by Dr. Merriam from the Grand Cañon.

(1). "Alt. about 3500 ft." Sept. 12. 1889. <sup>dark</sup> Sceloporus <sup>and interrupted</sup>  
15850 Above drab gray with <sup>an</sup> indistinct, zigzag lines of lighter color one scale wide



across the back gradually arranging  
into <sup>32 regular</sup> cross bands across the tail, the  
darker ones occupying 2 to 3 scale rows, the  
lighter interspaces one scale row less; head  
and upper neck suffused with light  
ochre; most dorsal scales edged with  
orange red, a few of the lighter ones  
being bright yellow along the keel  
especially those ~~back of~~ bordering the  
blackish shoulder patch behind; legs  
above like tail, but <sup>dark</sup> cross bars on fore  
legs nearly obsolete; three blackish, but  
ill defined and somewhat indistinct  
patches on the loins; ~~whole~~ under surface  
silvery white with some golden green  
on the flanks.

(2) "Alt. about 3000 ft" "Sept. 12, 1889" Sceloporus,  
15849. Clarkii juv.

Head ~~and neck~~ above brownish drab  
dark brownish gray, the snout lighter

with a regular pattern of greenish  
white forming an X shaped figure  
following the inner edge of the super-  
ocular region <sup>Ciliary</sup>, and a spot of similar color  
with a black central dotlet on the  
middle of the occipital; sides of head  
and upper neck brownish drab, with  
a few dusky spots on the upper  
mandible; a narrow blackish brown  
streak from lower part of eye back  
over the upper corner of the ear opening;  
a similar semilunar streak parallel  
with the head shield on the upper neck;  
rest of upper parts <sup>(of body and limbs)</sup> drab gray with  
well defined black spots and cross  
bars, the ~~latter are~~ light ~~reticulate~~  
scales bordering the black ones on  
the sides of the anterior back  
tinged with ochraceous; the shoulder  
patch particularly black, well defined



and connected across the neck  
with the one of the opposite ~~side~~  
side; under side white, silvery  
anteriorly, with a pale brassy gloss  
from the lower breast backwards;  
lower eye lid sky blue.

(3) "1" "Hid. about 3000 ft.; Sept 12 '89" Uta  
15847 *Uta stansburiana*?

Above coppery drab with three longi-  
tudinal series of indistinct brown  
spots along the back which is speckled  
all over with numerous blueish white  
specks from 1 to 3 scales large; tail  
somewhat gray with faint cross  
bars of a slightly darker color  
and a longitudinal dusky spot along  
the median line of each of the ~~anterior~~  
darker cross bars of the anterior half;  
legs with faint dusky cross bars;  
head more rusty on the crown inclining

to greenish bronze on supercilia and  
portion between them; snout dusky;  
under side whitish, flanks inclining  
to greenish; chin and throat sky blue  
with faint dusky markings.

(4) "2" Do. do. Same species.  
15846

Similar to above.

(5) "3" Do. do. do.  
15845

Similar to foregoing ones, but back  
with less light speck, but with  
numerous dusky dots particularly  
noticeable on the upper neck; whole  
head uniform coppery drab; cross bars  
on tail more distinct; chin and  
throat whitish, slightly suffused  
with blueish and marked with  
purplish gray; upper and lower mandibles

suffused with pale salmon color



arunicolor

(6)  
16189

"Hyla" Grand Cañon, Ariz. Sept. 13, 1889

C. St. Merriam. Alt about 3500 ft.

Above uniform frosted silvery, irregularly overlaid with a faint golden gloss, more brassy on tympana and sides of face; iris pale brassy with black marblings; faint traces of dark cross bars on limbs, the light interspaces being pale golden; under side whitish, ~~fe~~ suffused with pale <sup>bluish</sup> greenish on mentum and middle of breast and belly (stronger on the latter parts) and <sup>with</sup> pinkish ~~and~~ on fore neck; flanks posteriorly as well as inside of limbs bright and deep gamboge yellow, under side of thighs as well as sides of belly more brownish orange; discs pale orange

pink.

(7). Lizard coll. by Bailey, near  
15838 Uta ~~ornata~~ symmetrica  
bottom of Grand Cañon. "4"

General color above grayish drab, more pinkish on the tail and along the middle line, with a series of 8 "herring bone" cross bars of dusky growing paler behind and including a lighter spot on the middle line; the 6 anterior crossbars are bordered behind by a narrow black line, and all both in front and behind by a whitish one, broader behind than in front; on the sides several rows of indistinct pale spots, many of them bordered anteriorly by dusky; a narrow dusky line across the head between the eyes; an indistinct dusky line from nostrils through eyes to above ear; legs and tail indistinctly crossed by the ground color with lighter irregular intervals; under side



whitish with an emerald green elongated spot on each side of the breast, and a more yellowish one on the middle of the throat. In alcoholic specimen (Apr. 10 '90) the green of the sides is faint sky blue and the yellow of the throat has disappeared.

(8) "5" Do do. Same species.  
15849. Uta ~~ornata~~ symmetrica  
like the above but somewhat darker and pattern more distinct, no green on sides of breast, and with the spot on throat pinkish yellow. (disapp. in alcoholic)

(9) "6" Hyla <sup>areolaris</sup> Same loc. & collector. Sept. 13.  
16191 like the one coll. by Dr. M. descr.

above, but less metallic and more of a clayey color, except tympanum which is coppery; discs more purplish pink.

(10) "7" Hyla <sup>minigular</sup> do do do. like above.  
16192 Webs of hind feet in all bright gamboge yellow.

(11) "8" Hyla <sup>araneicolor</sup> Same species, coll. & loc.  
16190 Clayey above with numerous slightly darker spots, and well marked cross bars on limbs of same color; throat mentum dark purplish gray with whitish dots; labial margins whitish; breast which belly bluish gradually merging into yellowish behind; inside of legs bright gamboge yellow, thighs underneath more brown speckled with whitish; discs pale flesh color.

(12) "9" Dufo <sup>punctatus</sup> Near bottom of Cañon  
16185 about 2500 ft alt. Bailey coll. Sep. 13, 1889.

Above greenish <sup>malachite</sup> pea green densely speckled with small bright vermillion specks, limbs more whitish, likewise speckled with red and like the flanks likewise speckled with minute black specks; nostrils black; iris brassy marked

with black; upper labia and under surface bluish white, irregularly speckled with black.



lower belly and underside of thighs dark brownish flesh color; soles dull orange.

No 3001 -- Stones and soil to illustrate protection mimicry of Phrynosoma no H. 136. (color sketch no 3) collected at the same spot as the animal, at Cañon Spring, edge of (7500') Grand Cañon of Colorado, A.T. Sep. 12 1889.

Sept. 14. (Camp.

Ph. 27. Down the Cañon 9-30 am  
bright sun inst. 1.

Ph. 28 Do from higher up the trail;  
<sup>upright (5x4)</sup>  
~~lengthwise~~; Douglas pine in center; inst 1.

Ph. 29 X (safety opened before cooking!)

Ph. 30 = 28.

Ph. 31 Collecting cones & under difficulties.

Do do. do. <sup>up</sup> lengthwise (4x5)

Ph. 32 'The Monument' from upper portion

of trail. 5x4. Do. do. do.

No. 3002 -- Dendroica nigrescens ♂ ad.

Grand Cañon Spring, A.T. - Sep. 14, 1889.

T.L. 130 <sup>mm</sup> diam. eye 2.2 <sup>mm</sup>

Iris dark brown; bill and feet blackish plumbeous; soles whitish.

No. 3003. -- Parus gambeli ♂

Grand Cañon Spring, A.T. Sep. 14, 1889

T.L. 133 <sup>mm</sup>; diam. eye 3 <sup>mm</sup>.

Iris dark brown; bill black; feet bluish plumbeous. — Mottling all over.

No. 3004. Zonotrichia <sup>intermedia?</sup> leucophrys? ♂

Grand Cañon Spring, A.T. Sep. 14, 1889.

T.L. 180 <sup>mm</sup>; diam. eye 4 <sup>mm</sup>.

Iris hazel; bill brownish yellow, lower mandible & yellower, upper one with dusky tip; feet horny brown.

Merriam's coll. No. — . Vireo plumbeus

Grand Cañon Spring, A.T. Sep. 14, 1889.

T.L. 140 <sup>mm</sup>; diam. eye 3.5 <sup>mm</sup>.



Iris very dark brown; upper mandible  
dusky plumbeous, lower one pale bluish  
plumbeous, tibia nearly whitish;  
feet ~~pale~~ bluish plumbeous

Ph. 33. About same view as 10, or  
~~mm~~ perhaps 12. Sun, clear, somewhat  
hazy, especially distance. inst. 1. - 5.45 pm.

No 3005. Loxia stricklandi ♂

Cañon Spring, A.T., Sep. 15, 1889.

T.l. — ~~mm~~; diam. eye — ~~mm~~

Feet horny brownish gray.

Knowlton No. — Melanerpes torquatus. ♂

Cañon Spring, A.T., Sep. 15, 1889.

T.l. 275 ~~mm~~; diam. eye 5 ~~mm~~

Iris hazel; bill blackish plumbeous,  
pale at base of lower mandible;  
feet pale bluish plumbeous.

Sep. 16. Grand Cañon Spring

Photo 34 "Sunday Morning Devotions" inst. 1. - 9.30 am

Ph. 35 do. do. inst. 3 do.

Sep. 20 19. Little Spring Camp. S. Francisco Mts.

Ph. 36 Camp. inst. 1. sun 1.45 pm.

Ph. 37 do. inst. 3 do.

Ph. 38 Merriam's tent inst. 1 do.

Ph. 39 Knowlton's do. time 1/2 sec. fast clouded.

Ph. 40 ?? 00 ? Turned me up. ahead, perhaps?

~~Ph. 41~~

No. 3006. Troglodytes aedon aztecus — O.

Little Spring, S. Francisco Mt. 8200' alt., Ariz.

Sep. 19, 1889.

Total length 118 ~~mm~~. diam. eye 3.5 ~~mm~~.

Iris hazel; bill dark horny brown,  
lower mandible, except tip, flesh color;

feet horny brownish gray. Molting all over  
Sept. 20.

No 3007. Certhia Troglodytes aztecus ♂

Little Spring, S. Francisco Mt. 8200' alt. Ariz.



Sep. 19, 1889.

Iris T.t. — <sup>mm.</sup>; diam. eye — <sup>mm.</sup>

Iris like mole; bill do.

H. 135 Amblystoma tigrinum (nebulosum)

16179. Little Spring, S. Francisco Mt. Ariz.

Sep. 19, 1889. — 8200' alt.

Found wriggling in the ashes  
by the campfire in the evening,  
evidently fallen from one of the  
logs which were gathered in  
the immediate neighborhood of  
the camp. — Color sketch 2:

Dark and light colors of the  
body same as shown in the  
head; under side, except tail,  
pale yellowish gray; fore portion  
of torso tinged with pinkish; skin  
of back somewhat darker than head.

H. 136 Phrynosoma hernandesi

15724 Colorado Cañon Spring, Ariz. 7500'

Sep. 12, 1889.

Color sketch 3.

Stones to illustrate mimicry = No. 3001.

Under side whitish, <sup>on body</sup> with orange  
and bluish <sup>gray</sup> specks, which are  
most dense on chin and throat  
so as to nearly conceal the ground  
color; across the fore neck a collar  
of bright brownish orange.

No. 3008. Sciurus

♂

Camp Little Spring, 8200', San Frisco Mt.

Sep. 20, 1889.

T.l. 305 <sup>mm.</sup>; Tail 123 <sup>mm.</sup>; hind foot 50 <sup>mm.</sup>

No. 3008 a skull of 3008.

No. 3009 Melospiza lincolni

♀

Camp Little Spring, 8200', S. Frisco Mt. Ariz.

Sep. 20, 1889.

T.l. 138 <sup>mm.</sup> diam. eye 3 <sup>mm.</sup>



Iris dark brown; bill horny brownish slate, paler along Truina and at base of lower mandible; feet pale horny brown.

No. 3010. Sitta pygmaea ♂

Camp Little Spring, S. Frisco Mt., Ariz.

Sep. 21, 1889.

Tl. 105 <sup>mm</sup>; diam of eye 2.5

Eye Iris dark brown; bill blackish slate, except basal half of lower mandible which is bluish white; feet dark olive gray; soles yellowish.

No. 3011 Tamias quadrivittatus ♂

cimericollis Allen.

Little Spring, S. Frisco Mt., Ariz.

Sep. 21, 1889.

Tl. 220 <sup>mm</sup> tail 101 <sup>mm</sup>; hind foot 34 <sup>mm</sup>  
No. 3011 a. Skull of same

No. 3012 Tamias quadrivittatus ~~fasciatus~~  
♂ lateralis

~~Little Spring~~ Crater Lake, S. Little Spring,

S. Frisco Mt. Ariz. Sep. 22, 1889.

Tl. 258 <sup>mm</sup>; tail 95 <sup>mm</sup>; hind foot 39 <sup>mm</sup>

No. 3012 a. Skull of same.

No. H. 137, Phrynosoma hernandesi

15725 Hull's Spring (between Little Spring,  
S. Frisco Mt & Cañon Spring, Ariz.).

'alt.') Sep. 17, 1889.

Color sketch 4.

Border spines as well as tips of most spines on the retromitris and tail white, more or less tinged with bluish green; tips of spines on body mostly of the latter color, except the large ones in the dark patches; underside whitish, scales anteriorly (basally) orange, those of the body with minute gray dots which are collected in larger spots, densest on chin and throat. Collar brownish orange. — Spec. illustr. minimum = 3013

No. 3013. Specimens from Hull's Spring, illustrating minimum of tinging no.



Sep. 24. 1889. Little Spring.

Pl. 41 Skinning tent, L.S. — inst. 1.

Bright sun; 1.30 pm.

Pl. 42. Camp after moving. do. do.

Pl. 43 S. Francisco Mt. from Dr.

Merr. tent door. 5x4 — inst. 4.

Pl. 44 Water troughs, Little Spring. inst. 1.3.

Pl. 45 Arizona Skier do do.

Panorama from Walker Lake Crater, highest point of rim (inst. 3. — 3.30 pm) bright sun.

Pl. 46 X X (2 or 3 on one plate!)

Pl. 47 San Francisco Peak.

Pl. 48 —

Pl. 49 —

Pl. 50 — (Kendrick peak in extreme right corner)

Pl. 51 Kendrick Peak (to the left).

Pl. 52 X X (Safety not closed when shutter cocked)

Pl. 53 Same — as 52

Pl. 54 —

Pl. 55 —

Pl. 56 — Rim of crater

Pl. 57 — S. Fr. peak in right hand corner;

the tree in the middle, same as

the one in extreme left in Pl. 47

end of Panorama.

Pl. 58 Walker Lake with S. Frisco Peak in background, from rim of crater.

inst. 3. — 3.45 pm. 5x4.

Pl. 59 do do.

Pl. 60 "Half blown rose" at the well.

inst. 1. 4 pm.

Pl. 61 "The fairy's cabin" (Hochstetter). D. do.

Pl. 62 O. O. O. ? —

No H. 138. — Sceloporus consobrinus

15739 Cedar Nut, half way between Cañon Spring and Little Spring, Ariz. about 6500 feet alt.

Sep. 17, 1889

Color of belly patches somewhat green passing into brilliant blueish green towards the black line; neck patches more blueish than those of flanks.



No. H. 139. Phrynosoma hernandesi juv  
15726 Canon Spring, Ariz.

Sep. 15, 1889.

Color pale reddish gray,  
head and <sup>(in light portions)</sup> spines, more reddish,  
less gray; the neck patches  
and the cross bands of body  
and limbs <sup>(including spines)</sup> as in the adult  
but more regular and of a  
dark gray color; skin and  
throat tinged with same color as  
upper surface and with faint  
markings of gray; rest of  
under surface white.

This is the most distinctly  
marked specimen of this size I  
have seen. ~~Most~~ In most of the  
younger ones, the whole upper  
surface is more or less uniform  
reddish gray with but faint  
indications of the dark pattern;  
in this respect the young ones  
seem to be alike in all the  
color varieties.

Color Descriptions of Reptiles & Batrachians  
brought home by Dr. Merriam from  
Moon Copie.

Anfo <sup>woodhousei</sup> "10" ~~pale~~ above pale olive green  
with a somewhat lighter stripe down  
the back; top of tubercles pale red  
surrounded by black rings; lower  
surface of olive white. - Tanner's  
gulch, 3 miles north of Tuba City (2 miles  
Moon Copie). - [Separate Olive bottle!]

Ph. 63 - "One Cocks", Mill Street, ex. J. F. McClan-  
nan (and picture!). Sep. 24, 1889, inst. 6.  
Bright sun. 11 a.m.

Ph. 64 Do. do.

Color Sketch 5.

Anfo "11", Little Colorado River, crossing  
<sup>woodhousei</sup>



to Mon Copie, Sep. 22, 1889.

Iris brassy, densely obscured by dark mottlings except narrow inner ring which is bright metallic. Under surface blueish white, <sup>lower</sup> abdomen and <sup>inner</sup> under side of posterior extremities pale brownish yellow, palms likewise, inner under surface of out. limbs pinkish.

"12" - Color Sketch 6. - Lizard from w. of  
15824 *Crotaphytus merriami*  
Little Colorado River (crossing to Montezuma) Sep. 26 '89

Under surface pale greenish white; palms slightly pinkish, tail under nearly white. Tongue deep pink; pharynx blackish carmin; palate ultramarine blue. Iris brassy greenish yellow.

No 3014 *Buteo calurus* ♂ ad  
Little Spring, S. Frisco Mt. Ariz.  
Sep. 27, 1889.

Iris <sup>medium</sup> dark brown. Bill dark horny <sup>plumbeous</sup> ~~black~~, ~~flat~~ pale, more greenish towards base of lower mandible; cere yellow; feet yellow, claws dark horny plumbeous.  
T.L. 550 <sup>mm</sup>, wing 13 <sup>mm</sup>

No 3015 *Passerella schistacea* ♂  
San Francisco Mt., Ariz., 9000'  
Sep. 29, 1889.

Iris brown; bill dark horny plumbeous, basal half of lower mandible yellow; feet violet brownish gray.

"13" *Phrynosoma ~~antiochi~~ hernandezii*  
"3" 15815  
West of Little Colorado R., among black lava. Sep. 26, '89

Ground color of upper side, <sup>(including head)</sup> satiny black; light markings on median <sup>dull</sup> <sup>abruptly</sup> third of body, "naples yellow" <sup>gradually</sup> into the yellow ochre of those of the sides; tips of most lateral spines white; those of few largest horns on head marked with ochre; under side yellowish white, <sup>roughly</sup> marked with blackish; all over light sides yellow.



Remark in rq. to the Phrynosomas  
collected by Dr. Merriam  
in the <sup>summer 1889</sup> ~~neighborhood~~ <sup>shells</sup>. All from the  
immediate neighborhood of St. Fran-  
cisco Mt. <sup>and</sup> to the Grand Cañon  
of the Colorado have the head  
colored as in the (Thorn first)  
color sketch of Ph., viz, the an-  
terior portion of a greenish  
gray gradually grading into a  
Indian red on the large occipital  
spines, while those from the  
Painted Desert <sup>(from Copie trip)</sup> that are <sup>a yellowish</sup> brown  
have the head similarly and  
almost uniformly colored, and the  
black specimen from the Lava  
belt ("13") has the head black like  
the rest of the body, except the bases  
of the spines which are yellowish.

No. 3016 - Black Lava to illustrate  
the color mimicry of the black  
Phrynosoma "13" Merriam.

No. 3017. Moths.

Little Spring, S. Frisco Mt., Ariz.

Sep. 30 '89. - Found dead.

No. 3018 Anthus pensilvanicus ♂

S. Frisco Mt. Ariz. 9000'

Sep. 25 '89 (Howell's skinned).

Photos from the Ducklar Ranch,  
Hart Spring, Ariz. Oct. 1, 1889, 11-30 am.

Ph. 65 Readjusting the Pack.

Ph. 66 S. Francisco & Agassiz Peaks

from in front of the house.

Ph. 67 Bill Williams & Lidgren's Peaks  
from same.

Ph. 68 The Ducklar house.

Ph. 69 Jack and Jennie (Amos).

Ph. 70 The avogannic Mormon and his  
family.



Ph. 71. A shot at the missing member.

Ph. 72 X Agassiz Peak, S. Trico Mts.

Ariz. from  $\frac{1}{2}$  mile north of  
Flagstaff. - 4.30 pm. inst. 1. Sun.

Last picture and rest of page  
spoiled by reloading holder in  
broad daylight.

Oct. 3. - New roll American  
Film. (420) put in at night  
by lamp light so first two plates  
spoiled (old coil wound in darkness).

Ph. 73 (marked on plate) } Spoiled - X.

Ph. 74

No H. 140. Sceloporus Uta

15729. Rim of Walnut Canon, 8 miles ~~xxx~~

S.E. of Flagstaff, Ariz., 7000' alt.

Oct. 2. 1889.

On throat a pale orange brown patch,  
flank patches flesh color.

Ph. 75. Agassiz Peak, S. Trico Mts.,

Ariz., from Flagstaff. inst. 3.

3.30 pm. Bright sun.

Ph. 76 do do. from a somewhat  
different point.

Ph. 77 San Francisco Mountains  
from train at Bellemont

Station, 12 miles west of

Flagstaff. 4.30 pm. inst. 1.

Oct. 4. Prescott. A.T.

Ph. 78 View of "Thumb Butte" from balcony  
of hotel Williams (Mrs. Baumann).

1 pm. inst 5. Bright sun.

Ph. 79 View of "Granite Peak" from N. W. W.

No H. 141 Sceloporus

15740

Prescott, A.T., (on logs)

Oct. 4, 1889. (Flank and neck patches blue)

No H. 142. Sceloporus

15741

Prescott, A.T., (on logs)

Oct. 4 1889. (Flank and neck patches green)



Ph. 80. Same as 79, but 5.15 pm,  
partly cloudy, inst. 1.

Oct. 5 '89. Prescott, A.T.

Ph. 81. View of Prescott, from the water  
reservoir. Clear inst. 1. 8.45 am

Ph. 81. View of Ft. Whipple from do. 5 Pice  
Mts, etc in the distance. Do do do. 10.40

Ph. 82 Do do do. Focus 100.

Ph. 83. Typical specimen of Juniperus  
pachyphloea. "cheek bark cedar";  
Near Prescott. ab. 5500' - 25 feet dist;  
gun to show size; 10.30 am. Bright  
sun. inst. 1. - Shrub oak near.

Ph. 84 } Typical spec of Pinus ponderosa

Ph. 85 } do. do. - 25 feet dist. do. do.

84 possibly not exposed.

Ph. 86. Cottonwood from front  
inst. 1. 11.30 am. Bright sun.

Ph. 87 Same, from behind, Prescott Court-  
house in the distance. do. do.

No. 3019. Parus griseus  
Prescott, A.T., 5500'; Oct. 5 '89  
T.L. mm, diam. of eye mm.  
T.L. 5  $\frac{7}{16}$  inch.  
Iris dark brown

No. H. 143. Thamnophis juv  
15738 Prescott, Ariz. Oct. 5 '89.

No. H. 144 Sceloporus  
15742 Prescott, Ariz, Oct. 6 '89. (among rocks)

No. H. 145 Sceloporus, Ariz, do  
15743 Prescott, Ariz, Oct. 6, '89. (rocks)

No. H. 146. Sceloporus  
15744 Prescott, Ariz. Oct. 6 '89 (rocks).

NB. Pinus ponderosa occurs at  
Prescott down to the plain,  
or about 5200 feet without  
minor details of The whole valley sloping north  
regard to slope exposure. It  
is mixed with cheek bark cedar (Junip.  
pachyphloea  
occidentalis) occasionally and scrub  
oaks at least up to 5800'. On the  
west slope of the Granite Ridge on the road to Skull Valley  
the pine gives out already at 5500' and cedar more only on



~~No. 3020. - *Tamias dorsalis*~~

~~Prescott, Ariz. Oct. 6, 1889. Among rocks.  
Tail evidently defective, forming a  
thickened knob at the end, hence  
no measurements!~~

~~No. 3020 b. Skull of same~~

No. 3021 *Spermophilus*

♂

Prescott, Ariz. Oct. 7, 1889.

Tl.  $5\frac{7}{16}$  inch.

Iris brown; bill dark brownish  
plumbeous, lower mandible  
paler grayish except tip; feet  
blackish brownish black

No. 3022 *Tamias dorsalis*

♀

Prescott, Ariz. Oct. 7 '89 - 5600'

Tot. l.  $9\frac{2}{16}$  inch; tail  $3\frac{15}{16}$  inch

hind foot, incl. claws,  $1\frac{5}{16}$  inch

This species always seeks  
safety among the rocks, like  
*T. lateralis*

No. 3022 b. Skull of same

No. 3023. *Spermophilus*

♂

Prescott, A. T. Oct. 7 '87 - 5600'

Tl.  $13\frac{12}{16}$  inch; tail  $5\frac{14}{16}$  inch

hind foot incl. claws  $2\frac{3}{16}$  inch

No. 3023 b. Skull of same.

No. 3024 *Spermophilus*

♂

Prescott, A. T. Oct. 7 '87. - 5600'

Tl.  $15\frac{2}{16}$  inch; tail — inch

hind foot incl. claws — inch

No. 3024 b. Skull of same

Pl. 88.

Oct. 8, Stage

Pl. 88. - Watching the horses (stage coach)

(Skull) (Cape) (Hedberg) (lower end) 2 from 2 specimens

From inst. 1.

Pl. 89 Spoiled by exp. to daylight. On  
plate erroneously inscribed 88

Pl. 90 do do. ?



Oct. 9, 1889 - Vulture <sup>mines</sup> P.O. Ariz.  
Maricopa Co.

Studies of cactuses.

Ph. 91 Candelstick cactus. Cereus giganteus

Gun to compare for size: ind. l. light

sun 11.30 am. (5x4)

Ph. 92 cactus (same as I ran

into my skin. do. do. do. (4x5)

Ph. 93 Fouquieria (sp.) splendens Ocal.  
Cactus? late Yuccatal.

do do do do

Ph. 94. Three generations of Candelsticks.

do do do do. 12 noon

No 3025. Auriparus

♂ &

Vulture <sup>mines</sup> P.O., Ariz., Oct. 9 '89

T.L. 110 <sup>mm</sup>; diam. eye 2.5 <sup>mm</sup>

Iris dark brown; bill horny blackish  
plumbeous, pale at base of lower  
mandible; feet blueish plumbeous:

parine! Call note very characteris-  
tically parine: chickadee-like!!

Molting all over.

No 3026 Pheoptila

o

Vulture, Ariz., Oct. 9 '89.

T.L. 107 <sup>mm</sup>; diam. eye 2.75 <sup>mm</sup>.

Iris brown; bill dark plumbeous, paler  
at base of lower mandible; feet blueish

plumbeous, soles whitish. Call note  
decidedly catbird-like. Molting all over.

No. 3027 Amphispiza

♂

Vulture, Ariz. Oct. 9 '89.

T.L. 137 <sup>mm</sup>; diam. eye 3.15 <sup>mm</sup>.

Iris brown; bill blackish plumbeous,  
lower mandible, except tip, paler  
blueish gray; feet pale horny gray.

Molting, especially head.

No 3028 Amphispiza

♀

Vulture, Ariz., Oct. 9 '89

T.L. <sup>mm</sup>

Color like Amphispiza.

No 14. 147 - Lizard Chamaeleon Lepus

15749

Vulture, Ariz. Oct 9 '89.



No. 148. Lizard Callisaurus draconoides.

15734 Vulture, Ariz. Oct. 9 1889.

White underneath without colored flank patches; on  
An white sand. } sides of throat dusky lines

No. 149. Lizard Crotaphytus wislizeni

15736 Vulture, Ariz. Oct. 9 1889.

No. 3029 Tamias

♂

Vulture, Ariz. Oct. 9, 1889.

T.L. 210 mm; tail 77 mm

hind foot, incl. claw, 38 mm

Among rocks.

No. 3029 b. Skull of same

♂

No. 3030. Sayornis

Vulture, Ariz. Oct. 9, 1889

T.L. 192 mm; diam. eye 3 mm

Iris dark brown; bill and feet  
brownish black.

No. 150 - Lizard. Callisaurus draconoides

15735 Vulture, Ariz. Oct. 9, 1889

Flanks light emerald green,

the two dark bars do  
the sides being darker  
front of each green,  
smaller one of flesh colored; throat

Negatives

white without dusky lines.

Oct. 10. Ph. 95 - Echinocactus  
~~Cocumbe~~ cactus with curved

spines. - Vulture, Oct. 10. - 10.30 am.

Bright sun; inst. 1. - 10 feet distant.

Cactus 900 mm high.

No. 3031. Campylorhynchus

♀

Vulture, Ariz. Oct. 10 '89

T.L. 198 mm; diam of eye 3.5 mm

Iris copper red; bill slaty brown  
lower mandible, except tip, pale  
bluish gray; feet dull pearl  
gray; Primaries nothing

No. 3032 Salpinctes

♂

Vulture, Ariz. Oct. 10 '89

T.L. 145 mm

Colors as No. 3021.



No 148. Lizard Callisaurus draconoides.

15734 Vulture, Ariz. Oct. 9 1889.

White underneath without colored flank patches; on  
an white sand { sides of throat dusky lines

No 149. Lizard Crotaphytus wislizeni

15736 Vulture, Ariz. Oct. 9 1889.

No 3029 Tamias

♂

Vulture, Ariz. Oct. 9, 1889.

T.L. 210 mm; tail 77 mm

hind foot, incl. claw, 38 mm

Among rocks.

No 3029 b. Skull of same

No 3030. Sayornis

♂

Vulture, Ariz. Oct. 9, 1889

T.L. 192 mm; diam. egg 3 mm

Iris dark brown; bill and feet  
brownish black.

No 150 - Lizard. Callisaurus draconoides

15735 Vulture, Ariz. Oct. 9, 1889

Flanks light emerald green,

the two dark bars descending from  
the sides being darker green; in  
front of each green patch a  
smaller one of flesh colored; throat  
white without dusky lines.

Oct. 10.

Ph. 95 - Echinocactus  
~~Cylindropuntia~~ cactus with curved

spines. - Vulture, Oct. 10. - 10.30 am.

Bright sun; inst. 1. - 10 feet distant.

Cactus 900 mm high.

No 3031. Campylorhynchus

♀

Vulture, Ariz. Oct. 10 '89

T.L. 198 mm; diam of egg 3.5 mm

Iris copper red; bill slaty brown  
lower mandible, except tip, pale  
bluish gray; feet dull pearl  
gray; Primaries molting

No 3032 Salpinctes

♂

Vulture, Ariz. Oct. 10 '89

T.L. 145 mm

Colors as No. 3021.



No 3033 Harporhynchus palmieri ♀

Vulture, Ariz., Oct. 10 '89

T.L. — <sup>mm</sup>; diam. eye 5 <sup>mm</sup>

Iris orange yellow; bill and feet  
horny dark brownish gray.

No 3034 Phainopepla nitens ♂

Vulture, Ariz., Oct. 10 '89

T.L. 192 <sup>mm</sup>; diam. eye 3.5 <sup>mm</sup>

Iris copper red; bill and feet  
brownish black; lower mandible  
at base pale brownish gray.

No 3035 Lanius ♂

Vulture, Ariz., Oct. 10 '1889

T.L. 233 <sup>mm</sup>; diam. eye 5 <sup>mm</sup>

Iris dark brown; bill dark  
plumbeous; feet brownish  
black; Primaries molting and all over.

No. H. 151 lizard. Uta

15727

Vulture, Ariz., Oct. 10 '1889

No. H. 152 lizard. Uta

15728

Vulture, Ariz., Oct. 10 '89

My In addition to the four species of  
lizards collected at Vulture, I  
noticed several specimens of  
Gerrhonotus with pale  
sky blue tail, the same as observed  
at Prescott, and at Phoenix

No H. 153 Horned Rattlesnake Crotalus cerastes

15723

Vulture, Ariz., Oct. 10 '89.

Found dead and only head and  
rattle preserved.

No 3036 Lophortyx ♂

Vulture, Ariz. Oct. 10, 1889.

T.L. 287 <sup>mm</sup> diam. eye 4 <sup>mm</sup>

Iris dark brown;

My. — The "candle stick" cactus appears first  
about 7 or 8 miles south of  
Stanton, on road between Prescott & Phoenix, Ariz.



Ph 96 X Vulture Peak, from south side.

8 am. 1 inst. (Spotted 1).

Ph 97 do do.

P.B. The timberline (*Pinus ponderosa*) around Prescott is laid down on a map by John F. Hardy, geol. of the territory, first published in the Journal of Mining Engineering, 1882. Prof. Hardy has in preparation a more detailed map. - The candle stick cactus he informs me goes up to about 3000 feet.

No 3037 *Spizella* ♂

33 miles nw. of Phoenix, A.T., half way between Ph. and Vulture.

Oct. 11, 1889

T.L. 232 <sup>mm</sup>; diam egg 11.5 <sup>mm</sup>

Iris yellow; <sup>light</sup> horny greenish-yellowish gray; feet drab gray.

No 3038. *Lepus* o. immat.

Phoenix, A.T. Oct. 12, '89.

T.L. 368 <sup>mm</sup> tail 56 <sup>mm</sup>

hind foot incl. claws 80 <sup>mm</sup>

No 3038 b. Skull of same.

No H. 154. Lizard *Cnemidophorus* <sup>signatus</sup>

15750 Phoenix, A.T. Oct. 12 '89.

No H. 155 Turtle *Kinosternon henrici*.

15755 Salt River, Phoenix, A.T. Oct. 12 '89. (alive)

No H. 156 Lizard. *Uta*

15730 Phoenix, A.T. Oct. 14 '89.

On throat an illdefined patch of pale brownish orange.



Ph. 98. - Maricopa Indians at  
Tempe RR station. 2 pm. cloudy  
inst. 1.

No H. 157. Snake *Phyllorhynchus browni* n.s. & g.  
Tucson, A.T.

Presented by Mr. Herbert Brown, Tucson.

No H. 158 lizard. *Sceloporus clarkii* !!

15745 Tucson, A.T. Oct. 15, 1889.

No H. 159. Lizard To *Uta*

15731 Tucson, A.T. Oct. 15, 1889

Flank patches pale greenish blue,  
throat patch very pale greenish.

Ph. 99 - San Augustine Church, Tucson, A.T.

Oct. 15, 1889. - Bright sun. 11:30 am. inst. 1.

Ph. 100 do. do. do.

Ph. 101 do. do. 12 noon.

Ph. 102 Santa Catalina Mts from RR.

Station, Tucson, A.T. - 1:30 pm. inst.

Ph. 103 do. do. do. 5 inst.

Oct. 17.

Ph. 104. Mexican

8 am.

Ph. 105 Mex Farm

Ph. 106 M. water c

Ph. 107 Mex. 3 sha

No 3039 *Spermophilus*

♂ juv

2 miles south of Nogales, Sonora, Mex.

Oct. 17, 1889.

T. l. 420 mm; tail 200 mm

hind foot incl toes 57. mm

No 3039 b Skull of same.

No H. 160. lizard *Cnemidophorus*

15751

2 m. s. Nogales, Mex. Oct. 17 '89.

Tail and hind legs pale reddish

brown, almost transparent; dorsal  
median stripe dark like head,

the other light stripes pale straw

color becoming white posteriorly.

No H. 161 Lizard *Cnemidophorus*

15752 2 m. S. Nogales, Mex. Oct. 17 '89

o spe  
erfect

1889  
Aug. 2. 1889  
Collection



Ph. 98. - Maricopa Indians at  
Tempe RR station. 2 pm. cloudy  
inst. 1.

No. H. 157. Snake *Phyllorhynchus browni* n.s. & g.  
Tucson, A. T.

Presented by Mr. Herbert Brown, Tucson.

No. H. 158 lizard. *Sceloporus clarkii* !!

15745 Tucson, A. T. Oct. 15, 1889.

No. H. 159. Lizard *Uta*

15731 Tucson, A. T. Oct. 15, 1889

Flank patches pale greenish blue,  
throat patch very pale greenish.

Ph. 99 - San Augustine, Church, Tucson, A. T.

Oct. 15, 1889. - Bright sun. 11:30 am. inst. 1.

Ph. 100 do. do. do.

Ph. 101 do do 12 noon.

Ph. 102 Santa Catalina Mts from RR.

Station, Tucson, A. T. - 1:30 pm. inst.

Ph. 103 do do do. 5 inst.

Oct. 17.

Ph. 104. Mexican Watercarrier, Mex Nogales.

8 am. inst. 1 bright sun. (focus?)

Ph. 105 Mex Farm house (adobe) do. do do.

Ph. 106 M. Water carriers. do do. 8:15 am. inst. 1.

Ph. 107 Mex. 'shanty', Nogales, do do do. 8:30 am

No 3039 *Spermophilus* ♂ juv

2 miles south of Nogales, Sonora, Mex.

Oct. 17, 1889.

T. l. 420 mm; tail 200 mm

hind foot incl toes 57. mm

No 3039 B Skull of same.

No. H. 160. lizard *Cnemidophorus* *gularis*

15751 2 m. S. Nogales, Mex. Oct. 17 '89.

Tail and hind legs pale reddish  
brown, almost transparent; dorsal  
median stripe dark like head,  
the other light stripes pale straw  
color becoming white posteriorly.

No. H. 161 Lizard *Cnemidophorus* *gularis*

15752 2 m. S. Nogales, Mex. Oct. 17 '89



Body like fungus, but hind  
legs and tail opaque brownish  
drab. - like fungus ~~away~~ on stony ground

No H. 162 Lizard Uta

15732 2 m. s. Nogales, Mex., Oct. 17, '89.

Flank and throat patches blue.

On logs.

No 3040 Dryobates scalaris bairdi ♀

2 m. s. Nogales, Mex. Oct. 17 '89.

Iris dark chestnut; bill dark  
greenish slate; feet <sup>pale</sup> greenish  
pallidous.

T.L. 170 <sup>mm</sup> diam of eye 3 <sup>mm</sup>

No H. 163 Lizard Cnemidophorus gularis

15753 Calabasas, A.T., Oct. 18, '89

= Nos. 160 & 161: Tail brownish drab = 161.

No H. 164 Lizard Sceloporus

15746 Calabasas, A.T., Oct. 18, '89.

No H. 165 Lizard Uta

15733 Calabasas A.T. Oct. 18 '89. ~~Crochet~~ on house wall.

Flank patches pale sky blue; throat patches  
pale yellowish green in the middle, orange on the sides

No 3041 Pyrocephalus mexicanus

♂ ad

Calabasas A.T. Oct. 18 '89

T.L. 145 <sup>mm</sup>; diam. of eye 4 <sup>mm</sup>

Eyes brown; bill and feet blackish  
brown.

No 3042 Pipilo megalencus

♂

Calabasas A.T. Oct. 19 '89.

T.L. 222 <sup>mm</sup>; diam. eye 4.5 <sup>mm</sup>

Eyes raw umber; bill pale  
purplish gray; feet pale  
brownish gray

No 3043 Centurus uropygialis

♂

Calabasas, A.T. Oct. 19 '89

T.L. 240 <sup>mm</sup>; diam eye 4 <sup>mm</sup>

Iris chestnut; bill blackish  
pallidous; feet pale greenish  
gray. Primaries & crown patch and  
all on  
mottled;

No 3044 Harporhynchus palmeri

♀

Calabasas A.T. Oct. 19 '89

T.L. 295 <sup>mm</sup>; diam eye 5 <sup>mm</sup>  
Iris orange yellow.



Oct. 20.

Ph. 108 Mex flour mill, ranch near  
Mission. 10 am. slightly  
cloudy; inst. 1.

Ph. 109 do. do.

Ph. 110 Ruins of Mission Church "Mission  
de San Juan de Tumatácori," 10 miles  
n. of Calabasas.  
Exterior, front. 11.30 am; thinly veiled; inst 1.

Ph. 111 do, front, at close range.

Ph. 112 do interior: toward the altar,  
from the entrance.

Ph. 113 do: ceiling of abois

Ph. 114 do: looking toward the entrance

Ph. 115 do: <sup>interior</sup> from top of triglyph over entrance.

Ph. 116 do: baptisterium (?) in yard

Ph. 117 do: church from the yard.

Ph. 118 do do.

Ph. 119 do: Exterior. do do.

No H. 166 lizard. Sceloporus clarkii!

15748 Tumatácori, 10 m. n. of Calabasas A.T.

Oct. 20 '89. - On adobe wall.

Under side white with faint  
trace of bluish throat and  
flank patches (Shortly after  
death. Then become intensely  
blue broadly bordered with  
black. Upper parts lighter than  
in the alcoholic specimens and  
most of the dorsal scales bronzy  
green at base.

No 3045. Agelaius phoeniceus ♂

Calabasas, A.T., Oct. 20 '89

TL. 222 <sup>mm</sup>; diam. eye 4.5 <sup>mm</sup>

No 3046. Dryobates scalaris bairdi ♂

Calabasas, A.T., Oct. 21 '89

TL. 177 <sup>mm</sup>; diam. eye 3 <sup>mm</sup>.

Iris dark reddish brown; bill blackish  
plumbeous, lighter at base of ~~upper~~ lower  
mandible; feet pale greenish plumbeous.

No. The Geococcyx collected by Saito at Calabasas  
measured  
TL. 585 <sup>mm</sup>; diam. of eye 8 <sup>mm</sup>



No 3047. *Sphyrapicus nuchalis* ♀

Calabasas, A.T. Oct. 21 '89

Tl. 218 mm diam. eye 4 mm

Bill dark purplish slate, paler  
below; feet dull pale plumbeous.

No 3048 *Mimus polyglottos* ♀?

Calabasas A.T. Oct. 21 '89

Iris <sup>brownish</sup> yellowish.

No 3049 *Myerornis leucophrys sonoriensis* ♂ juv.

Calabasas A.T. Oct. 22 '89.

Tl. 120 mm; tail 52 mm

hind foot with claw 19 mm

No 3049 b. Skull of same

No H. 167. *Lizard *Cnemidophorus gularis**

15754 Calabasas, A.T. Oct. 22 '89.

Tail pale sky blue; light stripes  
on body pale straw yellow.

No 3050 *Phalaenoptilus calcaris ornatus* ♀ ad

Calabasas, A.T. Oct. 22 '89.

Tl. 151 mm; diam. eye 4 mm

Iris brown; bill brownish slate,  
lower mandible paler; feet  
horny brown;

No 3051 *Campylorhynchus brunneicapillus* ♂

Calabasas A.T. Oct. 22 '89

Tl. 250 mm; diam. eye 4 mm

No 3052. *Thryothorus bairdi* ♀

Calabasas A.T. Oct. 22 '89

Tl. 133 mm; diam. eye 3 mm

No 3053 *Lepus* ♂

Calabasas A.T. Oct. 23 '89

Tl.  $14\frac{14}{16}$  inch; tail  $2\frac{5}{16}$  inch

hind foot incl. claws  $3\frac{8}{16}$  inch.

No 3053 b. Skull of same.

No 3054. *Catherpes <sup>mexicanus</sup> ~~compensus~~ punctulatus* ♂

Calabasas A.T. Oct. 23 '89.

Tl. 147 mm diam. eye 3 mm

Iris brown; bill dark brownish  
slate, lower mandible gradually  
becoming paler basally, the basal third  
half being nearly white; feet dark horny <sup>brown</sup>.



No 3055. Spermophil

♀

Calabasas A.T. Oct. 23, 1889.

Tl. 445 mm; tail 187 mm

hind foot, incl. claws, 56 mm

No 3055 b. Skull of same.

NB: Character b in Ammodramus

Ridgway's Manual p. 407: "Tail 3 times as long as tarsus" does not hold; not one of the averages shows this proportion! In A. baileyi with tail only 2½ times tarsus length of latter is not given!!

Also in d<sup>2</sup> (p. 408), "tarsus" for exposed culmen!

No 3056 Cardinalis e. superbus

♂

Calabasas, A.T. Oct. 24 '89

Tl. 240 mm diam. eye 4.25 mm

Iris brown; bill <sup>dull</sup> orange red  
brownish at base; feet brownish gray

No H. 168. Frog

15720.

Sonora Creek near Calabasas A.T.

Oct. 23 '89.

~~Color green with dark brownish~~  
~~olive~~

No H. 169 Lizard Holbrookia

15737

Calabasas, A.T. Oct. 23 '89.

No 3057 Calamospiza melanocorys

♂

Calabasas A.T. Oct. 24 '89.

Tl. 175 mm; diam. eye 3.5 mm

Iris brown; bill pale bluish gray, lower mandible pale, ~~mostly~~ more whitish; feet ~~brown~~ grayish brown.

No 3058 Dipodops

♂ ad

Calabasas A.T. Oct. 24 '89

Tl. 233 mm; tail 136 mm

hind foot incl. claws 36 mm

No 3058 b. Skull of same



No 3059. Dipodops

♂

Calabasas, A.T. Oct. 24 '89.

Tl. 210 <sup>mm</sup>; tail, 130 <sup>mm</sup>

hind foot incl claws 35 <sup>mm</sup>

No 3059b. Skull of same

Oct. 25 '89.

Pl. 120. View of country near Calabasas

from foothills of the Cayatano Mts.

barom. 3365' looking east, to

show effect of slope exposure on  
hill in middle of picture; the

north slope being covered with narrow-  
leaved Agaves <sup>Yucca</sup> while the south slope

is covered with "Yuccatels" (For-  
quicia) and mesquite "cat-claw".

The crest of the hill runs nearly

straight east and west. 9.30 am.

sun slightly veiled; inst. 1.

Pl. 121 Santa Rita Peak from southernmost

peak of Cayatano Mts, Calabasas, 4550'

to the left in foreground two other peaks of

11.30 am. sun but slightly veiled by clouds; inst. 1.

Pl. 122

Agave, narrow-leaved; east slope of

4475'

Calabasas A.T. 12 noon. Do. Do. V. Bailey.

5x4.

Pl. 123

"Lover's Glen" Cañon, Calabasas

12.30 pm Do. Do. 4x5

No H. 170 Frog.

15721

Smarta Creek, Calabasas, A.T.

Oct. 25, '89.

No H. 171 lizard Sceloporus

15747

Calabasas A.T., Oct. 25, '89.

On the RR track among stones.

On the flanks a longitudinal,  
~~rather~~ narrow patch of pale  
sky blue, and a spot of similar  
color on each side of the neck  
below the ear opening.

No 3060 Rhynchophanes mecorini

♂

Calabasas, A.T. Oct. 25 '89.

Tl. 153 <sup>mm</sup> diam. egg 3.75 <sup>mm</sup>

Iris dark brown. bill clay colored, paler  
underneath, tip dusky; feet dark hoary brown



No 3061. <sup>h</sup>Tomomys

♂ ad

Calabasas, A.T. Oct. 25 '89.

TL. 210 <sup>mm</sup>; tail 62 <sup>mm</sup>; hind foot  
incl. claw, 30 <sup>mm</sup>

No. 3061 b. Skull of same.

Oct. 27. 1889 - Calabasas A.T.

Ph. 124. Unloading burro train

bringing in ore in bags, at  
R.R. station. Bright sun; 12:15 pm. inst. 9.

Ph. 125 mm Do. do. inst. 3.

Ph. 126 mm Do do inst 5.

Ph. 127 mm Burros from do. do inst. 5?

Ph. 128 mm Raising a burro do do. inst. 1.

Ph. 129 mm Santa Rita hotel, Calabasas,  
from S.E. Daily on balcony.  
12:30 pm. inst 1.

Ph. 130 mm X? Has probably both the "tank house"  
and the Santa Rita Mt. from  
balcony of Santa Rita hotel on it.  
4:15 pm. bright. inst. 1.

Ph 131 (or 132) mm Cayatana Mts and  
Santa Rita Peak, from Lobby  
balcony Sta Rita hotel. 4:15 pm.  
inst - 1.

Oct. 28 '89. - Calabasas A.T.

Ph. 133 mm "Tank house" Santa Rita Hotel  
from the hotel balcony. Daily in door.  
3:15 pm. bright, inst 1.

No H. 172. Frog.

15722 Calabasas, A.T. Oct. 29, 1889.

Brickyard pond.

Ph. 134 mm Crochons in garden, Hotel Santa Rita,  
Calabasas, A.T. Oct. 29 '89. 10:45 am  
bright sun. inst. 1.

No 3062 mm Rooting nest of Itari-  
parus flaviceps ♂

Calabasas, A.T. Oct. 29, 1889.

No 3063 mm Skunk

♀

Heiachuca Station A.T.

Oct. 30, 1889.



Feb. 595<sup>mm</sup>; tail 270<sup>mm</sup>

hind foot incl. claw 62<sup>mm</sup>

No. 3063 b. Skull of same

Oct. 31. 1889. Ft. Huachuca

Ph. 136 X Spoiled.

Ph. 137 - Hotel Huachuca, Ft. H. a T.

1.15 pm bright sun inst. 1.

Ph. 138 - Broadland Agave

with a small-land one in the

background; Ft. Huachuca. '5025' feet, not

corrected. 1.45 pm do. do. 5x4.

Stems 24 inches long.

Ph. 139 Blank. o o.

Ph. 140 Fort Huachuca, a T., from the hill

south of it. 2 pm. 4x5. inst. 1.

Ph. 141 Do do do do inst. 5.

Ph. 142 Do do do do do 3.

Ph. 143 Do do; from nearer and lower. inst. 1.

Nov. The following altitudes, except under heads of species, are not corrected.

Nov. 1. Ft. Huachuca (Hotel).

Barom. 178; 8 am local time

24.23 = 4720'

Jan. At the water reservoir in the valley

a little over 2 miles

south of the fort barom. 23.75 = 5225'

Here a tall <sup>(40')</sup> and old *Juniperus*

*paclyphloea*; this species appears in

small exemplars about 1 mile from

the fort.

First <sup>young</sup> small <sup>(20')</sup> *Pinus ponderosa* in

valley 9.30 am. bar. 23.58 = 5410'

A few feet higher a large tree,

60 centim. in diam. at base, and

young trees become <sup>more</sup> numerous; among

the oaks; no. bycamons any more —

*Pinus* <sup>of this size</sup> now numerous among the

oaks on the east slope of the valley up

to the top, but none yet on the western

slope.



10.45 am valley bifurcates barom. 2329

= 5715' f. Lycamors only occasional  
Here still a large one. Pines not yet on  
western slope. — Going up the left (east) fork.

Here shortly the valley again widens.  
This time up right or southern branch.

Pines now become numerous, but  
the short-needled kind, only occasional

*P. ponderosa*. Oak still continues.

Log cabin a little higher up.

11.15 barom. 23.09 = 5930' Pinon with nuts

Here on 5 ~~rods~~ square side by side:

*P. ponderosa*, other Pine, Pinon, Junip. *prostrata*,

and oaks; <sup>in fruit</sup> ~~both~~ broad-leaved Agave; birds:

Black crested Jay; *Melanerpes formic. bird*;

Junco yellow eyes

12.15 pm ~~Pass~~ large fruit bearing broadleaved  
agave. Still no pines on ~~left~~ east slopes

except pinons, and Junip. p. — Barom. 22.66 =

6410' — Rest 45 min

1 pm Pass. Bar. 22.62 = 6460' — Lights.

From the top of the pass I can see  
unobstructedly south over lower ridges, the  
horizon being formed by blue mountains  
way back in Mexico. It is evident that  
the Huachuca Mts are not continuous with  
the latter a wide plainlike valley

separating them. Nor does the pine appear  
on the south slopes of Huachuca Mts.

as seen from here, except on the higher  
peaks, and the pines are consequently  
not continuous with what pine forests  
there are in the Mexican Mts. 40 or

more miles away. I am told by Mr. Albrecht

that the Gimp. Woodpeckers were not shot

30 miles south of the boundary but

at least 120 miles, and with the country  
now lying at my feet I am ready to

believe him.

5.30 pm Hotel Huachuca Barom: 24.40 = 4850

Nov. 2.

8 am. Hotel Huachuca, Barom: 24.21 = 4750

1 pm: 24.18 = 4780



No H. 173 Lizard Uta

15761

Ft. Huachuca, A.T. Pass Summit 6700'

November 1, 1889.

a faint ~~pink~~ cream colored patch on middle of throat.

No H. 174 Lizard Sceloporus

15756

Ft. Huachuca A.T., Pass Summit 6700'

Nov. 1 '89.

On throat a large patch of brilliant ultra marine blue running back-wards on each side of the neck; ~~on each~~ flanks pale greenish blue terminating <sup>posteriorly</sup> in the groins in a black spot; scales on back creamy white, black at base; on upper neck a black collar bordered posteriorly with white; longitudinal stripe on each side of upper neck, and stripes on side of head likewise white; tail suffused with greenish blue; throat in front of blue patch and ~~middle belly~~ lower parts white;

(no black bordering blue patch; the black surrounding it appeared after death).

No 3064 Spermophilus

♂ ad.

Ft. Huachuca Valley, A.T. about 5800'.

Nov. 1 '89

Tl. 458 mm tail. 217 mm

hind foot incl claws 55 mm

No 3064 b. Skull of same

No 3065 Junco

♀

Ft. Huachuca Valley, A.T. 5000-6000'

Nov. 1 '89.

Tl. 152 mm, diam of eye 3.5 mm

Iris bright deep chrome; bill: upper mandible <sup>very dark horny</sup> blackish brown, lower mandible horny buff; feet pale brownish flesh.

No 3066 Passerella

♂

Ft. Huachuca Valley, A.T. ab. 5800'

Nov. 1 '89.

Tl. 157 mm, diam of eye 4 mm

Iris brown; bill brownish slate, sides at base and basal half of lower mandible wax yellow. Feet pale brownish flesh.



No 3067 Pipilo

♀

Ft Huachuca Valley A.T. 5000-6000'

Nov. 1 '89

TL. 203 <sup>mm</sup>; diam. eye 3.75 <sup>mm</sup>

Iris pale raw umber; bill blackish brown; feet dark grayish brown.

No 3068 Cyanocitta

♀

Ft Huachuca Valley, A.T. 6000'

Nov. 1 '89.

TL. 290 <sup>mm</sup>; diam. eye 6 <sup>mm</sup>

Iris dark brown; bill and feet black.

No 3069 Aphelocoma

♀

Ft. Huachuca Valley 6000-6700'

Nov. 1 '89.

TL 327 <sup>mm</sup>; diam. eye 6 <sup>mm</sup>

Iris very dark brown; bill blackish slate, below at base whitish; feet black.

No H. 175 Lizard Sceloporus

15757 Ft Huachuca A.T. 5800'

Nov. 2 '89.

changed in color very greatly after death. When just ~~shot~~ it was nearly black all over, except the blue patches underneath and on the under surface of the tail, so black in fact that it was almost impossible to distinguish the pattern on the upper neck. When ~~examined~~ examined an hour after, when coming home, it had changed to the same colors as no 174. In the living animal the blue throat patch was deep ultra marine blue verging to Prussian blue on the posterior branches down each side of the fore neck; these continued though considerably darker backwards on each side of the chest until they meet the flank patches which were vivid greenish blue; the black groin patch was also strongly suffused with Prussian blue;



rest of under surface, except of tail  
which was whitish, was a smoky  
blackish; upper surface, including tail,  
smoky black with a faint coppery  
luster on the back.

No 176 lizard *Sceloporus*

15758

Ft. Huachuca A.T. 5700'

Nov. 2 '89.

Like foregoing, though not quite so  
dark; tail with a decided greenish  
blue tinge. Changed like foregoing.

No 177 lizard *Sceloporus*

15759

Ft. Huachuca A.T. 5700'

Nov. 2 '89

Like foregoing, perhaps still  
lighter and changing in the same  
manner; underneath whitish, except  
posterior throat and flanks which  
were of a pale sky blue.

No 178 lizard *Uta*

15760

Ft. Huachuca A.T. 5800'

Nov. 2, 1889.

On throat a patch of vivid straw  
yellow.

No 3070 *Spizella*

♀

Ft. Huachuca A.T. 5800'

Nov. 2 '89.

Tl. 133 <sup>mm.</sup> diam. eye 2.5 <sup>mm.</sup>

Iris brown; <sup>bill</sup> horny brown above; flesh  
color below; feet pale horny brown.

No 3071 *Sialia*

♂

Ft. Huachuca A.T. 5800'

Nov 2 '89.

Tl. 167 <sup>mm.</sup>; diam. eye 4 <sup>mm.</sup>

Iris dark brown.

No 3072 *Spemophilus*

♂ juv

Ft Huachuca Valley, 5600' A.T

Nov. 1 '89

Tl. 375 <sup>mm.</sup>; tail 167 <sup>mm.</sup>; hind foot 51 <sup>mm.</sup>



No 3072 b Skull of same.  
Nov. 3.

Ph. 144 - Ft Huachuca and Huachuca  
Valley from the north. 10.30 am.  
Bright sun. inst. 1.

Ph. 145 - Dipodomys hill, 4 miles north  
of Ft Huachuca. do do do 11.45

Ph. 146 - do do, slightly different view.  
Diameter of hill 3 metres; height  
60 centims

No 3073 Lepus ♂  
Huachuca Plains, A.T. Nov. 3 '89.

Iris pale raw umber.

TL. 560 <sup>mm</sup>; tail 83 <sup>mm</sup>

hind foot incl. claws 130 <sup>mm</sup>

No 3073 b. Skull of same.

No 3074 Otocoris ♂

Huachuca Plains, A.T. Nov. 3 '89.

TL 167 <sup>mm</sup>; diam eye 3.5 <sup>mm</sup>

Iris brown; bill plumbeous, darker

at tip; feet brownish gray.

No 3075 Junco ♂

Silver City, N.M. Nov. 5 '89.

TL. 150 <sup>mm</sup>; diam. eye 3.5 <sup>mm</sup>

Iris very dark brown; bill flesh  
color, tip dusky; feet brownish gray.

No 3076 Junco ♂ !!

Silver City, N.M. Nov. 5 '89.

TL. 155 <sup>mm</sup>; diam. eye 3.5 <sup>mm</sup>

Colors as foregoing.

No 3077 Harporthynchus ♀

Silver City, N.M. Nov. 5 '89

TL. 270 <sup>mm</sup> diam. eye 6 <sup>mm</sup>

Iris chrome yellow; bill black;  
feet <sup>dark</sup> brownish gray, Tarsus  
lighter behind.

No 3078 Lepus ♂

Silver City, N.M. Nov. 5 '89

TL. 343 <sup>mm</sup> tail 33 <sup>mm</sup>

hind foot incl. claws 82 <sup>mm</sup>

Iris dark hazel



No 3078 b Skull of same

No 3079 Lepus

♀

Silver City, N.M. Nov. 5 '89

Total. 340 mm tail 46 mm

hind foot with claws 84 mm

No 3079 b Skull of same.

No 3080 Lepus

♂

Silver City N.M. Nov. 5 '89

T.L. 327 mm; tail 36 mm

hind foot incl claws 80 mm.

No 3080 b. Skull of same.

No 3081 Lepus

♂

Silver City, N.M. Nov. 5 '89

TL 595 mm; tail 83 mm

hind foot incl. claws 136 mm.

No 3081 b. Skull of same.

Nov. 7 '89. Silver City, N.M.

Ph. 147 Yucca. with 1. bright sun 3:15 pm

Ph. 148 Yucca with fruit stalks do do do 5x4

Ph. 149 Same plant do do do 5x4.

Ph. 150 ~~Yucca~~? Ore Mill unloading  
Silver ore from Pinos Altos.  
with 1. bright sun. 4 pm.

Ph. 151 do do do do

Ph. 152 do do do do

NB The altitude of Silver City as  
ascertained by RR leveling from  
the sea is said to be nearly 6000',  
so near so, that 2<sup>d</sup> story of this hotel  
may be considered to be 6000' within  
a few feet. Bar. 178 Nov. 7. 7<sup>th</sup> pm  
23.45 (-5550!)

The country round Silver City is  
a rolling plain cut by numerous  
"creeks" and <sup>thickly</sup> covered with Yucca,  
shrub oaks, Pinon and both  
species of Juniperus both padley phloea  
and the strip bark species.

Species of birds observed in addition  
to those present

Red tailed hawk  
Carpodacus  
Regulus calendula



*Pipilo macrdocet.*

(*Aphelocoma*)  
*Ayctya* (red shouldered)  
*Merula propinqua*

*Colaptes cafer*

*Lanius*

*Amphispiza bilineata*

(*Zonotrichia*)

No 3082. *Harporhynchus*

♂

Silver City, N.M. Nov. 7 '89.

Tl. 300 mm; diam. eye 4.5 mm

Iris clay colored; bill black; feet dark brownish gray.

No 3083 *Oarus*

0

Silver City N.M. Nov. 7 '89

Tl. 133 mm; diam. eye 2.75 mm

Iris brown; —

No 3084

♂

Silver City N.M. Nov. 7 '89.

Tl. 220 mm; diam. eye 4 mm

Iris chrome yellow; bill very dark brownish gray; feet dark brownish gray.

No 3085 *Pipilo*

♀

Silver City N.M. Nov. 7 '89

Tl. 198 mm; diam. eye 4 mm

Iris brown; bill pale lilac gray, upper half of upper mandible dusky; feet lilac gray. Tars darker gray.  
Common among the houses in town.

No 3086 *Myadestes townsendi*

♀

Silver City N.M.; Nov. 7 '89

Tl. 210 mm; diam. eye 5 mm

Egg Iris brown; bill <sup>brownish black</sup> blackish brown; feet blackish brown.

No 3087 *Spizella*

♂

Silver City N.M.; Nov. 8 '89

Tl. 138 mm; diam. eye 3 mm

Iris dark brown; bill brownish flesh color, culmen dusky; feet pale brownish gray.

No 3088 *Psaltiriparus*

0

Silver City N.M.; Nov. 8 '89

Tl. 105 mm diam. eye 2 mm

Iris dark brown; bill and feet black.  
Voice decidedly warlike, resembling *Agelaius*



No 3089 *Thryothorus*

♀

Silver City N M.; Nov. 8 '89

Tl. 133 <sup>mm</sup>; diam. eye 3 <sup>mm</sup>

Iris dark brown.

No 3090 *Aphelocoma*

♂

Silver City N M.; Nov. 8 '89

Tl. 295 <sup>mm</sup>; diam. eye 6 <sup>mm</sup>

Iris brown; bill and feet black.

No 3091 *Otocoris*

♂

Silver City N M. Nov. 8 '89.

Tl. 163 <sup>mm</sup>; diam. eye 3.5 <sup>mm</sup>

Iris brown; bill slate colored, paler,  
nearly whitish at base of lower  
mandible; feet brownish slate.

No 3092 *Lophortyx*

♂

Silver City N M. Nov. 7 '89

Tl. 283 <sup>mm</sup>; diam. eye 5 <sup>mm</sup>

Iris brown; bill black; feet pale  
brownish pearl gray.

No 3093 *Lophortyx*

♀

Silver City N M. Nov. 7 '89

Tl. 270 <sup>mm</sup>; diam. eye 4.75 <sup>mm</sup>.

Iris brown. etc as ♂ 3092

No 3094 *Spirurus*

♂

Silver City N M. Nov. 9 '89

Tl. 110 <sup>mm</sup>; diam. eye 2.75 <sup>mm</sup>

Iris brown; bill pale bluish gray, culmen  
and tip dusky; feet brownish gray.  
Molting all over.

No 3095 *Zonotrichia*

♀

Silver City N M. Nov. 9 '89

Tl. 159 <sup>mm</sup>; diam. eye 4 <sup>mm</sup>

Iris brown; bill dull brownish orange,  
tip dusky; feet pale horny brown.

No 3096 *Lepus*

♀

Silver City N M. Nov. 9 '89

Tl. 353 <sup>mm</sup>; tail 42 <sup>mm</sup>

Hind toe incl. claws 82 <sup>mm</sup>

No 3096 b. Skull of same.



Nov. 10 '89. Silver City, N.M.

Ph. 153 Silver City, from hills west of the town. 2 pm. sun highly visible. inst 1.

Ph. 154 Piñon tree. 5500'

do do do.

Ph. 155 Silver mine

in valley west of Silver City. do. do. do.

Ph. 156 Cactus. 6500'

do do do.

Ph. 157 Checkerboard. Cedar. 4500'

Silver City in background. do. do. do.

Barom. 178 - Fremont Hotel 2<sup>nd</sup> floor.

9.30 pm. 23.19 (5820')

Nov. 12 '89. El Paso, Texas.

Barom. 178. Vendome Hotel 2<sup>nd</sup> floor.

8 am. 25.57 (3360')

Ph. 158 Church, Juarez, Mex.

9.20 am. bright sun. inst 1.

Ph. 159 Part of Juarez, on Plaza, Juarez

Mex. do do do.

Ph. 160 Interior of Church. do do do.

Ph. 161 do do. 5 sec. do.

Ph. 162 Exterior of do. near view. do do do.

Ph. 163 Entrance to military barracks, Juarez, Mex.

do do. 9.50 am

Ph. 164 Street in Juarez do do do.

Ph. 165 Architecture: fruit stand do do do.

Ph. 166 Public school for girls, Juarez. do do do.

Ph. 167 Street scene, Juarez do do do.

Ph. 168 Court house, El Paso, Texas. do to 11 am

Ph. 169 Public School, El Paso, do to 11.15 am

Ph. 170 Building on Main Street, El Paso. do do.

Nov. 14 '89. El Paso, Texas.

Mount. north of town. Barom. 178.

12 m. 24.84. (8 am. at S S station.

26.19) [same time?]

3.30 pm. Estm. Home Vendome. 26.14

26.20 S. S. barom.

8 pm. 26.26

No 3097 Tamias interpres

♀

El Paso, Texas, Nov. 14 '89 - 4000'

tl. 223 mm; tail 82 mm

hind foot incl. claws 38 mm

among rocks.



No 3097 b. Small of same  
Nov. 15 '89 El Paso

5.30 <sup>pm</sup> S.D. office barometer corr. 26.33

Gen. Surv. Bar. 178 ——— 26.20

Correction + 0.13.

Correction from Nov. 14. + 0.11

5.30 — Hotel Vendome, 20th B. 178: 26.22.

No H. 179. - Holbrookia

15762 El Paso, Texas. Nov. 16 '89.

Ground color above vinaceous  
cinnamon becoming more vinaceous  
posteriorly, the spots being brown  
between cinnamon rufous and  
vinaceous rufous; flanks anteriorly  
orange buff, posteriorly sulphur  
yellow, the black crescents having  
a tinge of neutral tint on the yellow.

No H. 180. lizard Uta

15763 El Paso, Texas Nov. 16 '89

No H. 181 do

15764 El Paso, Texas, Nov. 16 '89

No H. 182 do.

15765 do

No H. 183 do

15766 do

No H. 184 do

15767 do

No H. 185 do

15768 do

No H. 186 do

15769 do

No H. 187 do

15770 do

No H. 188 do

15771 do.

This species, 180-188, lives on rocks  
or sand and <sup>immediately upon being himself discovered</sup> always seeks refuge in  
holes under some bush, mesquite, cactus  
or the like.



No H. 189. Lepus Uta  
15772 El Paso Texas, Nov. 16 '89

No H. 190 do  
15773 do

No H. 191 do  
15774 do

No H. 192 do  
15775 do

No H. 193 do  
15776 do

No H. 194 do  
15777 do

No H. 195 do  
15778 do

No H. 196 do  
15779 do

No H. 197 do  
15780 do

No 3098. Tamias interpans ♂  
~~15781~~ El Paso, Texas, Nov. 16 '89. 4000'

TL. 215 mm; tail 76 mm  
hind foot incl. claws 38 mm

No 3098 b. Skull of same

No 3099 Tamias interpans ♂  
El Paso Texas, Nov. 16 '89 4000'  
TL. 215 mm; tail, 72 mm  
hind foot incl claws 36 mm

No 3099 b. Skull of same

No 3100 Tamias interpans ♂  
El Paso, Tex. Nov. 16 '89 4000'  
TL. — mm; tail — mm  
hind foot incl. claws 37 mm

No 3100 b. Skull of same

No 3101 Tamias interpans ♂  
El Paso, Tex. Nov. 18 '89 4000'  
TL. 215 mm; tail 80 mm  
hind foot incl. claws 35 mm

No 3101 b. Skull of same

No 3102. Tamias interpans ♂  
El Paso, Tex. Nov. 18 '89 4000'



Tl 212 mm; tail 75 mm  
hind foot incl. claws 35 mm

No 3102 b. Skull of same

No 3103 Tamias interpres ♀

El Paso, Tex. Nov. 18 '89 4000'

Tl. 218 mm; tail 75 mm

hind foot incl. claws 36 mm

No 3103 b. Skull of same

No 3104 Tamias interpres ♀ 4000'

El Paso, Tex. Nov. 18 '89

Tl. 200 mm; tail 68 mm

hind foot incl. claws 35 mm

No 3104 b. Skull of same

No 3105 Tamias interpres ♀

El Paso Tex. Nov. 18 '89 4000'

Tl. 214 mm; tail 73 mm

hind foot incl. claws 36. mm

No 3105 b. Skull of same.

No H. 198 Lizard Uta

15781 El Paso, Tex. Nov. 20 '89 3700'

No H. 199 do

15782 do

No H. 200

15783 do

No H. 201

15784 do

No H. 202

15785 do

No H. 203

15786 do

Prof Baird  
and Henderson  
St. Louis

(198-20

The 198-

sandy f

on the r

R R tracks.

Nov. 21 '89

Geol. Surv

S.S. more. barom. corr. for temp. : 26.23

corr.

+ 0.11

ter than 189 reg.

found on the

the Rio Grande

& under the

Paso.

26.12



TL 212 mm; tail 75 mm  
hind foot incl. claws 35 mm

No 3102 b. Skull of same

No 3103 Tamias interpres ♀

El Paso, Tex. Nov. 18 '89 4000'

TL 218 mm; tail 75 mm

hind foot incl. claws 36 mm

No 3103 b. Skull of same

No 3104 Tamias interpres ♀ 4000'

El Paso, Tex. Nov. 18 '89

TL 200 mm; tail 68 mm

hind foot incl. claws 35 mm

No 3104 b Skull of same

No 3105 Tamias interpres ♀

El Paso Tex. Nov. 18 '89 4000'

TL 214 mm; tail 73 mm

hind foot incl. claws 36. mm

No 3105 b. Skull of same.

No H. 198 Lizard Uta

15781 El Paso, Tex. Nov. 20 '89 3700'

No H. 199 do

15782 do

No H. 200 do

15783 do

No H. 201 do

15784 do

No H. 202 do

15785 do

No H. 203 do

15786. do

(198-203 same paler than 189 reg.)

The 198-203 were found on the  
sandy flats near the Rio Grande  
on the embankment under the  
R R ties.)

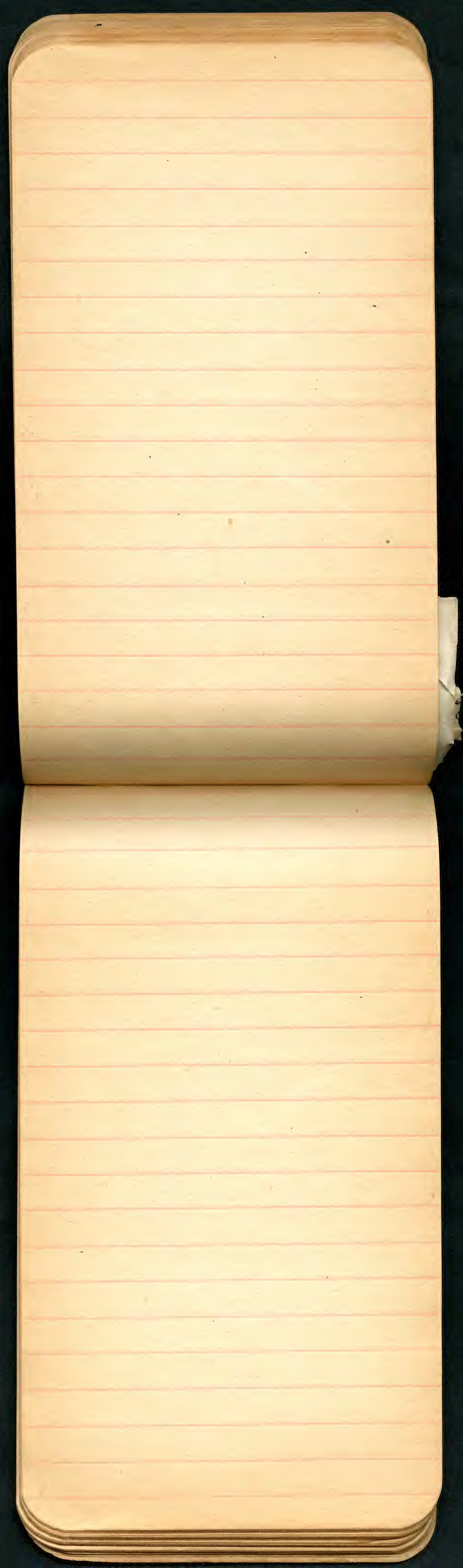
Nov. 21 '89 S. S. office El Paso.

Geol. Surv. Mex. 178. 26. 12

S. S. merc. baron com. for temp. : 26. 23

corr. + 0. 11











*John T. Blandy, M. D.*

TERRITORIAL GEOLOGIST,

PRESCOTT, ARIZONA.





St Louis  
Industrious  
Dr. Schaefer says  
Mr. Davis



OFFICE OF

The Citizen Printing and Publishing Company.

Publishers of the Daily and Weekly Arizona Citizen.

Tucson, A. T., Oct 15 1889.

Dear Mr Fournier  
Calabasas

Dear Sir:

The promoters of this  
note Dr. Sturges and Mr Bailey  
both connected with and collect-  
ing for the Smithsonian will  
visit your section for the  
purpose of collecting mammal  
skins reptiles etc.

Any favor shown them  
will be duly appreciated  
by yours truly  
Herbert Brown



Spizella monticola Ridgw.

Adult: Top of head dull tawny brown, indistinctly streaked with darker brown; rest of head, including anterior portion of forehead, plain ashy, becoming gradually paler (almost white) on chin and throat; short very pale grayish buffy. The sides and flanks similar but rather deeper; belly and under tail-coverts white; back grayish tawny, broadly streaked with black; middle wing-coverts tipped with pale buffy, but greater coverts with out light tips; bill cinnamon; length (this) about 4.50, wing 2.70, tail 2.50, culmen 0.35, tarsus 0.72. Hab. New Mexico (vicinity of Silver City). [Ridgw., Man. p. 419]

♂ Young more than twice as long as culm; no dusky streak behind eye

3. S. monticola

♂ Young not longer than tail (usually shorter). (Wings partly without any rusty, and top of head distinctly streaked with dusky). ♂♂ Ideas distinctly striped; ear-coverts light buffy brown, in marked contrast with the very distinct band apparent. and median stripe of dull whitish, and notch of side of neck.

4. S. pallida.

♂♂ Ideas not distinctly striped, and ear-coverts not distinctly brownish.

5. S. breweri.

♂♂ Ideas and neck plain grayish; chin and upper throat black in adult.

6. S. atropurpurea



*Spizella*. (Arg. Mex. Tex.)

Crown. Blu. : lower back, rump, and

upper tail-coverts plain grayish or grayish  
brown, or else very indistinctly streaked; lower  
parts plain whitish, grayish, or pale  
brownish (belly always white) in adult,  
streaked with dusky in young.

a) Head more or less conspicuously marked, but  
no black on chin or throat.

b) Wing with 2 distinct white bands; lower

membrane yellow; adult with dusky spot in  
center of chin. . . . . *S. ochracea*

b) Wing without 2 distinct white bands;

lower mand. without yellow; ad. without  
dusky spot on cheek.

c) Wing decidedly longer than tail

d) Tarsus less than twice as long as culmen;  
a distinct dusky streak behind eye.

*S. arizonae*



" atricapillus

" meridionalis

Psaltriparus plumbeus

" sanda-vitae

Auriparus flaviceps

Polioptila caerulea

" plumbea

Sialia mexicana

" arctica



UNITED STATES NATIONAL MUSEUM

UNDER DIRECTION OF

THE SMITHSONIAN INSTITUTION

WASHINGTON, August 31, 1889.

List of Special Desiderata among Arizona Birds

---

Cyrtonyx, Leophortyx, and Callipepla: good specimens  
for mounting.

Columus ridgwayi. Series.

Meleagris gallopavo. Good specimens for mounting.

Scardafella inca.

Parabuteo unicinctus harrisi.

Buteo borealis calurus. Very dark specimens

" abbreviatus.

" lineatus elegans — if it should be met with.

Urubitinga anthracina.

Archibuteo ferrugineus. Good specimens for mounting.

Aquila chrysaetos. " " " "

Falco fusco-caerulescens.

" richardsoni,



Polyborus cheriway. Good specimen for mounting

Syrnium occidentale. " " " "

Megascops asio trichopsis.

" flammeolus. Very special desideratum!

Glaucidium phalaenoides } Series  
" gnoma.

Micropallas whitneyi.

Coccyzus americanus occidentalis

Trogon ambiguus.

Ceryle cabanisi.

Dryobates arizonae.

" scalaris bairdi.

Picoides americanus dorsalis. Series

Colaptes chrysoides.

Melanerpes uropygialis.

Anthus vociferus arizonae.

Phalaenoptilus nuttalli nitidus.

Chordeiles texensis.

Chaetura vauiei

Cypseloides niger

Eugenes fulgens.



Coeligena clemenciae.

Calothorax lucifer.

Iache laterostris.

Mypodognastes luteiventris.

Myparchus mexicanus magister.

" lawrencei olivascens.

Contopus pertinax.

Empidonax hammondi.

" fulvifrons pygmaeus. Series.

Ornithion imberbe ridgwayi. "

Otocorys alpestris chrysolaema "

Corvus cryptoleucus

" corax sinuatus

" americanus hesperis.

Agelaius phoeniceus sonoriensis.

Icterus parisorum.

" cucullatus nelsoni.

Leopha curvirostra stricklandi.

Spinus psaltria arizonae.



Spizella pallida.

" atrigularis.

" montani.

Junco cinereus palliatus

" dorsalis.

Peucaea arizonae. Many as possible!

" carpalis.

" cassini.

" ~~ruficeps~~

Melospiza fasciata fallax.

Passerella iliaca selustacea.

Pipilo aberti.

Cardinalis cardinalis superbus. Series.

Pyrrhuloxia sinuata beekhami.

Guiraca caerulea eurhyncha.

Passerina versicolor pulchra.

Piranga hepatica.

" at rubra cooperi.

Progne subis hesperia.

Tachycineta thalassina.

Phainopepla nitens.



Vireo bellii

" pusillus.

" vicinior.

" huttoni stephensi.

" atricapillus.

Helminthophila luciae.

" virginiae.

" ruficapilla gutturalis.

Dendroica aestiva sonorana.

" graciae

" townsendi

" occidentalis

" nigrescens.

Seiurus noveboracensis notabilis.

Geothlypis trichas occidentalis.

" macgillivrayi.

Setophaga picta.

Cardellina rubrifrons.

Harporhynchus bendirei

" crissalis.



Hauporhynchus lecontei.

" curvirostris palmeri.

Campylorhynchus brunneicapillus.

Catherpes mexicanus conspersus or punctulatus.

Certhia familiaris montana

" " mexicana.

Parus inornatus griseus.

" atricapillus septentrionalis

" meridionalis.

Psaltisparus plumbeus

" santa-ritae.

Arreiparus flaviceps.

Polioptila caerulea

" plumbea.

Sialia mexicana

" arctica.



